



biosystems

X-CLARITY™

Accelerate
your research

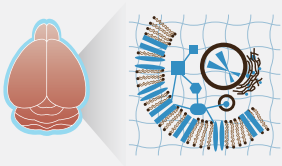
Sectioning is time. We cut the time.

Tissues are inherently three dimensional in nature, which makes imaging intact tissues a necessity for a more complete study into the relationship between structure and function and the system-level study of cellular mechanisms. Tissue clearing has become an important step for imaging tissues in 3D at single-cell resolution.

Accelerate your research with X-CLARITY™

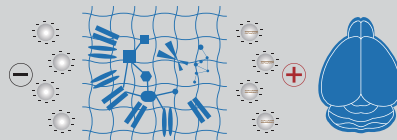
The X-CLARITY™ is a collection of systems and ready-to-use reagents to standardize, simplify, and accelerate each step of the tissue clearing process. Beyond clearing, the all-new DeepLabel™ Antibody Staining Kit enhances antibody penetration into large clarified tissues and X-CLARITY™ Mounting Solution is a high quality refractive index matching solution that minimizes photobleaching and preserves fluorescence signals for vibrant fluorescence imaging.

1 Hydrogel Infusion



X-CLARITY™ Hydrogel Solution Kit
X-CLARITY™ Polymerization System

2 Tissue Clearing



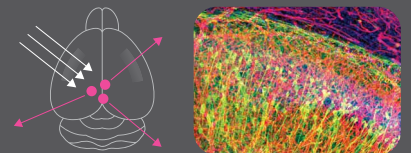
X-CLARITY™ Tissue Clearing System II
Electrophoretic Tissue Clearing Solution

3 Antibody Labeling



DeepLabel™ Antibody Staining Kit

4 Imaging



X-CLARITY™ Mounting Solution



Step 1



X-CLARITY™ Hydrogel Solution Kit

C1310X

X-CLARITY™ Hydrogel Solution
C13103 – 1 L

X-CLARITY™ Polymerization Initiator
C13104 – 2.5 g



X-CLARITY™ Polymerization System

C20001

The X-CLARITY™ Polymerization System is a standalone, automated system developed to simplify tissue-hydrogel hybridization, a crucial step for optimal tissue clearing. Multiple samples can be placed in multi-well plates or conical tubes for rapid and efficient high-throughput sample processing. Users can control polymerization by adjusting vacuum strength, temperature, and a timer through a simple touchscreen interface.

Step 2



X-CLARITY™ Tissue Clearing System

I - C10001 | II - C30001

The X-CLARITY™ Tissue Clearing System II is an all-in-one, rapid, and reliable solution for tissue clearing. Lipids are removed quickly and uniformly while preserving the structural integrity of tissues. The tissue clearing environment can be controlled safely and precisely with a simple touchscreen interface.



Electrophoretic Tissue Clearing Solution

C13001 – 12 x 1 L

Electrophoretic Tissue Clearing Solution is a premixed SDS-based buffer optimized for use with the X-CLARITY™ Tissue Clearing System.

Step 3



DeepLabel™ Antibody Staining Kit

C33001

DeepLabel™ Solution A
C33002 - 1 x 25 mL

DeepLabel™ Washing Buffer
C33004 - 1 x 250 mL

X-CLARITY™ Mounting Solution
C13101 - 1 x 25 mL

DeepLabel™ Solution B
C33003 - 2 x 25 mL

The DeepLabel™ Antibody Staining Kit enhances antibody penetration into large clarified tissues for vibrant fluorescence imaging. DeepLabel™ facilitates the diffusion of molecular probes deep into thick, protein-dense tissues for robust and efficient antibody labeling. DeepLabel™ has been optimized for the antibody labeling of clarified tissues.

Step 4



X-CLARITY™ Mounting Solution

C13101 – 25 mL | C13102 – 10 x 25 mL

X-CLARITY™ Mounting Solution is a high quality, cost-efficient refractive index matching solution (RIMS) modified from the recipe developed by Yang et al. The refractive index (RI) of the solution is 1.460 at 25°C and is stable over a wide temperature range. The X-CLARITY™ Mounting Solution minimizes photobleaching and preserves fluorescence signals, making it an ideal solution for clarified and labeled tissue samples.